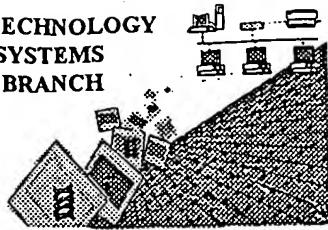# RAW SEQUENCE LISTING
ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: *10/509,420*
Source: *Pct/10*
Date Processed by STIC: *10/5/04*

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:
1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY
FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT
MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE <u>CHECKER VERSION 4.2 PROGRAM,</u> ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE. SEE BELOW FOR ADDRESS:
http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.
Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.
Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 06/05/04):
    U.S. Patent and Trademark Office, 220 20th Street S., Customer Window, Mail Stop Sequence, Crystal Plaza Two, Lobby, Room 1B03, Arlington, VA 22202

Revised 05/17/04

Raw Sequence Listing Error Summary

ERROR DETECTED	SUGGESTED CORRECTION	SERIAL NUMBER: _10/509,420_

1 ____ Wrapped Nucleics
____ Wrapped Aminos
The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."

·2 ____ Invalid Line Length
The rules require that a line not exceed 72 characters in length. This includes white spaces.

3 ____ Misaligned Amino
____ Numbering
The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters; instead.

4 ____ Non-ASCII
The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. **Please ensure your subsequent submission is saved in ASCII text.**

5 ____ Variable Length
Sequence(s) ____ contain n's or Xaa's representing more than one residue. **Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each** residue having variable length and indicate in the <220>-<223> section that some may be missing.

6 ____ PatentIn 2.0
____ "bug"
A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. **This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.**

7 ____ Skipped Sequences
____ (OLD RULES)
Sequence(s) ____ missing. If intentional, please insert the following lines for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
(i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped

Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.

8 ____ Skipped Sequences
____ (NEW RULES)
Sequence(s) ____ missing. If intentional, please insert the following lines for each skipped sequence.
<210> sequence id number
<400> sequence id number
000

9 ____ Use of n's or Xaa's
____ (NEW RULES)
Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

10 ____ Invalid <213>
____ Response
Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence

11 ____ Use of <220>
Sequence(s) ____ missing the <220> "Feature" and associated numeric identifiers and responses.
Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)

12 ____ PatentIn 2.0
____ "bug"
Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

13 ____ Misuse of n/Xaa
"n" can only represent a single <u>nucleotide</u>; "Xaa" can only represent a single <u>amino acid</u>

AMC – Biotechnology Systems Branch – 09/09/2003

PCT

RAW SEQUENCE LISTING   DATE: 10/05/2004
PATENT APPLICATION: US/10/509,420   TIME: 11:12:11

Input Set : **A:\PTO.FG.txt**
Output Set: **N:\CRF4\10052004\J509420.raw**

```
    3 <110> APPLICANT: Japan as Represented by President of The University of Tsukuba
    5 <120> TITLE OF INVENTION: A New Root-knot Nematodes Resistance Gene and Its Use
    7 <130> FILE REFERENCE: PH-1611-PCT
C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/509,420
C--> 10 <141> CURRENT FILING DATE: 2004-09-24
   12 <150> PRIOR APPLICATION NUMBER: JP 2002-89622
   13 <151> PRIOR FILING DATE: 2002-03-27
   15 <160> NUMBER OF SEQ ID NOS: 8
   17 <170> SOFTWARE: PatentIn Ver. 2.1
```

see item 4 on Error Summary Sheet

Does Not Comply Corrected Diskette Needed

pp 1-4

ERRORED SEQUENCES

```
   19 <210> SEQ ID NO: 1
   20 <211> LENGTH: 2613
   21 <212> TYPE: DNA
   22 <213> ORGANISM: Solanum tuberosum
   24 <400> SEQUENCE: 1
   25 atggcttatg ctgctattac ttgtcttatg agaaccatac aacaatctat tcaacttact 60
E--> 26 ggatgtaatt tgcaatcatt ctatgaaaag tttgaatctt tgagagcttn tttggagaaa 120
   27 cacacgggca atcttgatgc attgaaaagc ttggaagctg aaatcataga acttgtatgc 180
   28 actacagaag atattttgga cttggaatca agaaatgtta aaaatccaat ttcaagaata 240
   29 atagcttttt ggaaacttca ttctctcttg aaacaagcag taggacgcat tgattccacg 300
   30 ctgaacaagt ggatggaaat gcagaacatg tacaccaaaa ggaaagatga agaagcacat 360
   31 aacttggatc ttgctagtac tgcatcaatg tctcaacatg ttgtggagcc tcaggatatg 420
   32 atggttggac atgaaaatga actcgagatg atcatgcagg atcagcttgc tagaggagca 480
   33 agtgaacttg aagttgtctc cattgtaggt atggggggca tcggtaagac aactttggct 540
   34 gacaaaattt ataatgatcc attcataatg tcacactttg acattcgtgc aaaagctact 600
   35 gtttcacaag agtattgcgc gaaaaatgta tgcctaagtc ttctttcttc tataagtgga 660
   36 aagagcaatg agcatcaaga tgatgggcaa ctagctgatc gactgcaaaa aagtctaaaa 720
   37 gggaggaggt atttagtagt cattgatgac atatggaccg aacgagcttg ggatgatatg 780
   38 aaactatgtt tcccagattg taactgtgga agcagaatac tgctgacaac tcggaatatg 840
   39 gaagtagcta agtatgctag ctcaggtaag cctcctaaga tcaaatgcg actcttgaat 900
   40 attgatgaaa gttggaagtt actacccagt agagtctttg taaaaaactg tttctcccct 960
   41 gaatttgaac aacttgggaa acaaattgct cttaaatgcg ggggattacc tttagctatt 1020
   42 atcgttattg ctggagttct gtctaatatt ggtgagtcat ttgatgaatg gacaagtgtt 1080
   43 gcagagaatg taagttcagt ggtaagtaca gatcacaatg tacaatgcat gagagtgttg 1140
   44 gcgttgagtt atcatcactt accacatcac ttgagagcgt gtttctata ttttgcaata 1200
   45 ttcccggagg atacagtgat ttttgtgaat aaacttgtga aattatggac agcagaggt 1260
   46 tttttgaaga cagaaatgat gaaaagtata gaagaagttg cagaaaaatg tgttaaagat 1320
   47 cttatagata gaaatttagt ttttgtccaa agggtgagta gttttgatgg aaaaataaaa 1380
E--> 48 gcttgtggaa tgcatgatgt gatccgtgaa ctctgcttga gagaagctcg aaacaaat 1440
   49 tttgtgaatg ttataatgga taatcaaaat ccatgtgaac aatccatgaa ttattccaca 1500
```

see p.3 for error explanation

see p.2 for more errors

RAW SEQUENCE LISTING   DATE: 10/05/2004
PATENT APPLICATION: US/10/509,420   TIME: 11:12:11

Input Set : A:\PTO.FG.txt
Output Set: N:\CRF4\10052004\J509420.raw

```
      50 aagggagttc ggataagtat ccaatccaaa cttgctgcca atcagttgtc tatggtttgt 1560
      51 aataacgatt cctattctgt tctcgttttt actgaagatc cctcaagctc aagaatggtg 1620
      52 cagggcttga agcatttcaa ggtactaaga gtacttatct tgcttcggtg gcattgcatg 1680
      53 tttcccaatt gcatagttga actatttcac ttgagatatc taggtttgag tgtttactcg 1740
      54 tccactaatg attgggatat ttgtttccca tcctcaatag ctagccttga gtatttgcaa 1800
      55 actttaatac ttaagtttcc aacatctctc ggatggaagt tcactagact tttcagatta 1860
      56 ccatcgagta ttttcaagat gtcgcaattg aggcatctat ctttggactg gaattacttg 1920
      57 aatggacatg aatctagcga gagatcaagt tgggttttga gaaatcttga gtgtctgtct 1980
      58 ggatggaatc ctttatcttg tacttcttcg gtttttagac tacttccgaa tgtaaagaag 2040
      59 ttgcaaatat gtggtatcca agaagactac ataagaaagg acaaggtctt tgatgatctt 2100
      60 tgctgcttaa atcagcttac agaattgaaa tttaagatta gaaagatgat tggaagagca 2160
      61 atatatgata catcttttgt tcttcctcct ctaggtgctt ttccgaagaa ccttaagaag 2220
      62 ttagctttta caggtactcg tttgcattgg aaggatttgg agattcttgg taagttgcct 2280
      63 aaatcgagg ccctcaaact aggatatgat gcctgcattg gtactgattg ggaagtaggt 2340
      64 gaggaagggt ttccacactt gaagttcttg cgattgaagc atttgtactt gcataactgg 2400
      65 agagctagta gtgatcattt tccacgactt gaacgactag tcattaaccg tcgttggagg 2460
E-->  66 atgtattcga tcccacagga ttttgtagac ataaccacac ttcagctgat tcatataann 2520
      67 gactctgcaa aatctgttgg gaactccgcc aagaagattc agcaggaaat tgaagacagc 2580
      68 tatggaagtt ctgttgaggt ctgtatcagt tag                               2613
      95 <210> SEQ ID NO: 4
      96 <211> LENGTH: 17
      97 <212> TYPE: DNA
      98 <213> ORGANISM: Artificial Sequence
     100 <220> FEATURE:
     101 <223> OTHER INFORMATION: Description of Artificial Sequence:primer
     103 <400> SEQUENCE: 4
E--> 104 gttttcccag tcacgac                                                  18
     143 <210> SEQ ID NO: 8
     144 <211> LENGTH: 24
     145 <212> TYPE: DNA
     146 <213> ORGANISM: Artificial Sequence
     148 <220> FEATURE:
     149 <223> OTHER INFORMATION: Description of Artificial Sequence:primer
     151 <400> SEQUENCE: 8
     152 ctaactgata cagacctcaa caga                                         24
E--> 157 1/6
```

VARIABLE LOCATION SUMMARY   DATE: 10/05/2004
PATENT APPLICATION: US/10/509,420   TIME: 11:12:12

Input Set : A:\PTO.FG.txt
Output Set: N:\CRF4\10052004\J509420.raw

error explanation

Use of n's or Xaa's(NEW RULES):
Use of n's and/or Xaa's have been detected in the Sequence Listing.
Use of <220> to <223> is MANDATORY if n's or Xaa's are present.
in <220> to <223> section, please explain location of n or Xaa, and which
residue n or Xaa represents.

Seq#:1; N Pos. 110,1435,2519,2520

SEQUENCE LISTING

<110> Japan as Represented by President of The University of Tsukuba

<120> A New Root-knot Nematodes Resistance Gene and Its Use

<130> PH-1611-PCT

∠1507 <140> PCT/JP02/12392
∠1517 <141> 2002-11-27

These are prior data, not current.

VERIFICATION SUMMARY   DATE: 10/05/2004
PATENT APPLICATION: **US/10/509,420**   TIME: 11:12:12

Input Set : **A:\PTO.FG.txt**
Output Set: **N:\CRF4\10052004\J509420.raw**

L:9 M:270 C: Current Application Number differs, Replaced Current Application Number
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:26 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:1
M:340 Repeated in SeqNo=1
L:104 M:254 E: No. of Bases conflict, LENGTH:Input:18 Counted:17 SEQ:4
L:157 M:254 E: No. of Bases conflict, LENGTH:Input:6 Counted:25 SEQ:8
L:157 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:2
L:157 M:252 E: No. of Seq. differs, <211> LENGTH:Input:24 Found:25 SEQ:8